

**REMARKS**

In this Amendment, claim 20 is amended. After entry of this Amendment, claims 20-24, 26-30, 32 and 33 are pending in the application.

Step (b) of claim 20 is amended to recite “clustering computationally said protein sequences based on said protein sequence-based attributes using Principle Component Analysis, and displaying the results of said clustering.” This amendment is supported by the specification at page 10, lines 11-15, for example.

Claim 20 has also been amended to recite a step (d) “comparing outlier proteins with protein sequences in databases.”

This amendment is supported by the specification, for example, at page 13, line 20, and in Examples 5 through 7.

No new matter has been introduced. Entry of this Amendment is respectfully requested.

**Response to Claim Rejections Under 35 U.S.C. §101**

The Examiner rejects claims 20-24 and 26-28 under 35 USC §101, because in the Examiner’s opinion, the claims are directed to non-statutory subject matter. More particularly, the Examiner believes that the claims encompass a method performed on a computer that lacks a physical result performed outside of a computer.

Independent 20 has been amended to recite “displaying the results of said clustering.” It is respectfully submitted that the amended claims are statutory. See page 6 of the Office Action, lines 11-12 of the last paragraph, suggesting that the claims would be statutory if a display step was recited.

Amendment under 37 C.F.R. § 1.114(c)  
USSN 09/820, 843

Withdrawal of this rejection is requested.

**Response to Claim Rejection Under 35 U.S.C. § 112, First Paragraph**

At page 7 of the Office Action, the Examiner rejects claims 20-24, 26-30, and 32-33 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner states that the omission of the step “comparing said outlier proteins to known proteins to identify a unique outlier protein” in the September 14, 2004 Amendment, is new matter.

The comparing step has been added back to independent claim 20.

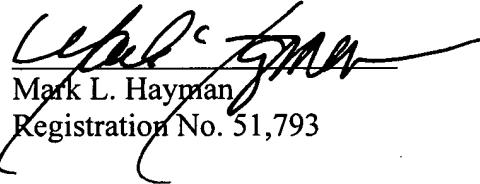
Accordingly, withdrawal of this rejection is requested.

Amendment under 37 C.F.R. § 1.114(c)  
USSN 09/820, 843

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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